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Z/032/60/010/012/003/009
E073/E335

Development and Investigation of the Properties of the Type
CrMnN Austenitic Steel for Castings

work on this subject in 1958. At that time, the mechanical and other properties of such steel were not verified, not even in the wrought state and it was necessary to determine the basic properties of castings, to investigate the pertaining foundry technology and to gain more information on this material by means of semi-industrial and industrial heats. The developed steel has virtually no Ni content. The Mn content is 13-15%, the N content is very high (0.20 - 0.35%), whilst the Cr content remains around 17%. To retain the austenitic structure 4% Ni used in other Czech economy austenitic steels is substituted by an increased content in Mn and N. The main problem was to achieve the desired nitrogen content without running the risk of obtaining bubbles and porosities. The limit of solubility of the nitrogen was determined by the method of F.C. Langenberg (Ref. 9) at 0.33% for 1600 °C. The nitrogen was introduced

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in the form of a 93% Mn + 5.3% N alloy after complete melting of all the additions, deoxidation of the bath by ferrosilicon and measurement of the temperature by means of an immersion pyrometer. For verifying the state of the steel and its behaviour during solidification, specimens were drawn from the furnace and cast into chill moulds or into small dry or green sand moulds. Only after these tests was the experimental melt tapped from the 100-kg magnesite-lined induction furnace into a preheated 100-kg capacity ladle with a basic lining. After withdrawing the slag and measuring the temperature again, the steel was teemed into moulds. The time interval from the instant of adding the nitrogen up to the time of teeming was between 15 and 30 min; as an exception it was 1 hour for two heats when the effect of alternate cooling and heating of the melt on the final nitrogen content of the steel was investigated. The total

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duration was 2 to 2.5 hours. The nitrogen content determined by analysis was found to be in good agreement with the theoretically determined limit of solubility of the given steel at 1 600 °C. The laboratory tests were followed by tests in electric-arc furnaces of 250 kg (VZU LZ, Pilsen) and 1 000 kg capacity (Smeral Works, Brno). The chemical compositions (in %) of two heats produced in the 250-kg furnace are given in Table 5 and that of one heat produced in the 1 000-kg furnace is given in Table 6. The nitrogen was added in the form of an alloy (86% Mn, 5.27% N). The nitrogen losses amounted to 40-50% as compared with 6-15% during laboratory tests. The usual foundry tests were made for determining the foundry properties and for working out a technological process of casting this material. Similarly, the mechanical properties, heat-treatment, possibility of using this steel at elevated temperatures and the welding properties were studied. From the point of view of the

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mechanical properties this material can be used reliably at temperatures up to 500 °C, although the similar American "Tenelon" steel is recommended for use up to temperatures of 700 °C. It is pointed out, however, that the structural stability of this steel drops considerably with increasing temperature and therefore use of this steel as a high-temperature resisting material is justified in applications in which the required service life is only a few tens or hundreds of hours and the favourable creep properties are important, provided that it is not necessary to consider fully the embrittlement of the components. In the case of fittings to be used in chemical plant or power-generation equipment this structural instability must be taken into consideration. The authors recommend for standardisation a new steel of the following composition:

Max. 1% Si, 13.0-15.5% Mn, 16.0-19.0% Cr, 0.30-0.60% Mo, 0.30-0.50% Cu, 0.20-0.35% N, max. 0.050% P

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and 0.035% max. S. After austenisation annealing the material should have the following average mechanical properties: $\sigma_{Kt} = 43 \text{ kg/mm}^2$, $\sigma_{Pt} = 70 \text{ kg/mm}^2$, $\delta_5 = 40\%$, $\omega = 50\%$, impact strength 10-25 mkg/cm², depending on the chemical composition and the method of austenisation.

Table 5:	C	Mn	Si	P	S	Ni	Cr	Mo	Cu	N
Specifi- cation	max. 0.15	13-14	max. 0.65	max. 0.050	max. 0.040	=	15.5 to 16.5	0.4 to 0.6	0.4 to 0.6	0.25 to 0.35
3814	0.16	17.23	0.67	0.017	0.012	0.22	17.04	0.42	0.48	0.34
3815	0.14	14.00	0.42	0.015	0.011	0.20	14.80	0.53	0.57	0.24

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Z/034/61/000/002/005/006
E073/E535

AUTHORS: Löbl, K., Engineer, Potůček, B., Engineer and
Šustek, A., Engineer

TITLE: Austenitic Stainless Steel for Castings.
Patent Application Class 18d, 1/30, PV 1915-59,
dated April 2, 1959

PERIODICAL: Hutnické listy, 1961, No. 2, pp.138-139

TEXT: The steel contains 0.05 to 0.25% C, maximum 1.5% Si,
6 to 12% Mn, 14 to 22% Cr, 0.10 to 0.30% N, 3.5 to 5.5%
Ni and 0.10 to 3.00% Cu. Furthermore, it contains
0.10 to 5% Mo and a maximum of 0.05% B or Zr or
B and Zr simultaneously in a quantity not exceeding ✓
0.1%. This steel is satisfactory for casting
components which come into contact with acids. An
advantage of this steel is also its high yield point.

Card 1/1

SUSTEK, Alois

Preventing the formation of cold shuts in alloyed steel. Slevarenstvi
9 no.11:445-449 N '61.

1. Stredni vyzkumny ustav materialu a technologie, slevarensky vyzkum,
Brno.

(Steel casting)

S/137/62/000/009/020/033
A006/A101

AUTHORS: Lábl, Karel, Potůček, Bedřich, Šustek, Alois

TITLE: Stainless austenitic steel for castings

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 9, 1962, 78, abstract
91480 P (Czechosl. Patent no. 100061, of July 15, 1961)

TEXT: To replace the widely used austenitic stainless Cr-Ni steel (9% Ni, 18% Cr), an austenitic steel is proposed which does not contain Ni at all or only small amounts of it. The chemical composition of the steel (in %) is: C 0.05 - 0.3, Si ≤ 1.5, Mn 10 - 20, Cr 14 - 22, N 0.15 - 0.45, Cu 0.10 - 3.0. The corrosion resistance of the steel can be raised by addition of 3.5% Ni or 0.10 - 5.0% Mo (or by joint addition of Ni and Mo). The mechanical properties are improved by addition of B or Zr in a 0.05% amount, or by their simultaneous addition in a quantity of up to 0.10%. The steel structure should not contain > 25% of the ferritic component. The production of this steel has an economical advantage, since its use makes it possible to reduce the weight of the castings (due to improved mechanical properties) and their Ni content. Moreover, the wide-ranged

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Stainless austenitic steel for castings

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chemical composition of the steel permits the use of mixed alloy-steel wastes for melting. The authors point to the positive results of tests made with parts of steel containing (in %): C 0.16, Si 0.67, Mn 17.23, Cr 17.04, Ni 0.22, Mo 0.42, Cu 0.48, N 0.34, P 0.017, S 0.012 - in HNO_3 at its low concentration and temperature, and also in the production of citric acid.

G. Rymashevskiy

[Abstracter's note: Complete translation]

Card 2/2

SUSTEK, Alois

Foundry technology in making alloyed steel for high parameters.
Slevarenstvi 10 no.5: 165-168 My '62.

1. Statni vyzkumny ustav materialu a technologie, Brno.

SUSTEK, Alois; SIMONIK, Stanislav

Evaluation of steel from the viewpoint of its casting properties.
Slevarenstvi 10 no.11:455-458 N '62.

1. Statni vyzkumny ustav materialu a technologie, slevarensky vyzkum,
Brno.

S/137/62/000/012/045/085
A006/A101

AUTHORS: Löbl, Karel, Zezulová, Marcela, Šustek, Alois, Potůček, Bedřich,
Stefek, Vladislav, Chatrný, Drahomír, Pant, Pavel

TITLE: Austenite stainless (dispersion) hardening steel for castings

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 12, 1962, 75,
abstract 12I450P (Czechosl. Patent no. 100589 of August 15,
1961)

TEXT: A steel is proposed which contains in %: C 0.05 - 0.40; Si > 1.5;
Mn 0.5 - 6.0; Cr 14 - 20, N 0.01 - 0.25, Ni 2.5 - 5.5. The corrosion resistance
of the steel increases by the addition of 0.10 - 3.0% Cu. Steel containing
0.10 - 5% Mo has a raised corrosion resistance in H_2SO_4 .

V. Srednegorska

[Abstracter's note: Complete translation]

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Z/020/63/000/001/003/005
D006/D102

AUTHORS: Lobl, K., Vyklicky, M., Kabrhel, A., and Sustek, A.

TITLE: Research on economical stainless austenitic-ferritic steels for service in the chemical industry

PERIODICAL: Energetika, no. 1, 1963, 54

TEXT: The paper is concerned with the problem of nickel saving in austenitic chrome-nickel steels used for production of welded machine equipment for the chemical industry. Using Soviet sources and results of own research, a total of four economical steels was developed in which nickel content was reduced practically to one half compared with the scarce steels they are to replace. The economical chrome-nickel austenitic-ferritic steels can replace the classic austenitic steels in most applications except for cases involving corrosive or active environments. Also, in designing machine equipment advantage can be taken of their better mechanical properties, especially higher yield point, as compared with the currently required chrome-nickel austenitic steels. Abstracter's note: This is a complete translation of an abstract from the Vyzkumna zprava SVUMT (SVUMT Research Report) no. Z-61-1003, Prague, 1961.
Card 1/1

SUSTEK, Alois; LOBL, Karel

Founding properties of stainless steels with reduced nickel content. Slevarenstvi 11 no.11:468-471 N°63.

1. Statni vyzkumny ustav materialy a technologie, Praha.

BORIK, E., inz.; SUSTEK, J., inz.; ZIZKA, J., inz., dr.

Efficiency of foam dust suppressors in slag mills of the mines
"Zelezne doly a hrudkovny Misek". Rudy 10 no.9:319-321 S '62.

1. VUKSB, Praha.

SUSTER, J.

SUSTER J.

Nase skúsenosti s liečbou keratoconjunctivitis phlyctaenulosa
streptomycinou. [Results of streptomycin therapy of phlyc-
tenular keratoconjunctivitis] Česk. oft. 7:3 1951 p. 145-8.

1. Of the Eye Clinic of Slovak University, Bratislava (Head--
Prof. Anton Gala, M.D.).

SUSTER, Jozef, MUDr

Certain problems of perforating injuries of the eye. Cesk.
oftn. 10 no.3:170-178 Je '54.

1. Z ocnej kliniky SU v Bratislave (prednosta prof. Dr.A.Gala)
(EYE, wounds and injuries,
*perf. inj.)
(WOUNDS AND INJURIES,
*eye, perf. inj.)

SUSTER, JOSEF
SUSTER, Josef

Therapy of tabetic atrophy of the optic nerve with penicillin. Cesk.
ofth. 11 no.1:29-33 Feb 55.

1. Z očnej klin. SU v Bratislave - predn. prof. MUDr. A.Galla.
(PENICILLIN, ther. use
tabetic atrophy of optic nerve)
(NERVE, OPTIC, diseases
tabetic atrophy, ther. penicillin)

SUSTER, Jozef

Treatment of retinal detachment with associated hole in macula lutea.
Gesk. ofth. 14 no.2:130-133 Apr 58.

l. Z Ocnej kliniky Komenskeho univerzity v Bratislave. Prednosta prof.
MUDr. ant. Gala.

(RETINAL DETACHMENT, complications
hole in macula lutea, surg. ther. with amnion transpl. (Cz))
(AMNION, transplantation
in surg. repair of retinal detachment with hole im macula (Cz))

SUSTER, Jozef

Experience with surgical therapy of retrobulbar orbital tumors.
Cesk. ofth. 15 no.2:81-90 Apr 59.

1. Ocna klinika Komenskeho univerzity v Bratislave, prednosta prof.
dr. A. Gala.

(ORBIT, neoplasms,
retrobulbar, surg. (Cz))

SUSTER, J.

Present status of the problem of retinal detachment. Cas. oft. 15 no.2:
161-176 June 59.

1. Ocna klinika UK v Bratislave, prednosta prof. dr. A. Gala.
(RETINAL DETACHMENT
review (Cz))

SUSTER, J.

Sixtieth anniversary of Prof. Dr. Jozef Pajtas. Cesk. ofth. 16 no.1:
1-4 Ja '60
(BIOGRAPHIES)

SUSTER, Josef

Transplantation of the oral mucosa into the hypoplastic conjunctival sac in anophthalmos. Cesk. ofth. 16 no.1:5-11 Ja '60

1. Očna klinika UK v Bratislavě, prednosta prof. dr. A. Gala
(EYES abnorm. wds & inj.)
(MUCOUS MEMBRANE transpl.)

SUSTER, J., prof. dr.; SZAK, O.

Difficult diagnosis of intracranial tumors causing bilateral blindness. Cesk. oftal. 21 no.3:207-211 My '65

1. Okna klinika Lekarskej fakulty Univerzity Karlovy v Bratislave (prednosta: prof. dr. J. Suster).

SUSTER, J.

70th birthday of Academician Jaromir Kurz, Bratisl. lek. listy
45 no. 2: 127-128 31.3.1965.

SUSTER, M.

Intracranial complications of otogenous origin and antibiotics;
81 cases. Bratisl. lek. listy 31 no.9-10:908-920 1951. (CLML 22:2)

1. Of the Otolaryngological Clinic in Kosice.

SUSTER, M;BARTA, T.

Experiences with the treatment of scleroma with special references
to streptomycin therapy. Bratisl. lek. listy 31 no.9-10;1019-1028
1951. (CLML 22:2)

1. Of the Otolaryngological Clinic of Slovak University Branch
in Kosice.

SUSTER, Michal, Doc. MUDr

Contribution to speech disorders in neck injuries. Cas.lek.cesk.
91 no.7:213-216 15 Feb 52.

1. Z otolaryngologickej Kliniky PLSFU v Kosiciach. Prednosta: doc.
MUDr Michal Suster.

(SPEECH DISORDERS, etiology and pathogenesis,
neck inj.)

(NECK, wounds and injuries,
causing speech disord.)

(WOUNDS AND INJURIES,
neck, causing speech disord.)

SUSTER, Michal, Doc MUDr

Treatment and prevention of scleroma. Cas.lek.cesk. 91 no.35:
1009-1012 29 Aug 52.

1. Z otorhinolaryngologickej kliniky v Kosiciach. Prednosta: Doc.
MUDr Michal Suster.
(RHINOSCLEROMA,
prev. & ther.)

SUSTER, Michal (Kosice, ul. D.Feju 4)

Control of scleroma. Lek. obzor 3 no.3-4:149-154 1954.

1. Z Otolaryngologickej kliniky SU v Kosiciach.
(RHINOSCLEROMA, prevention and control,
*Czech)

SUSTER, M.; LUKAN, J.

Endotracheal anesthesia in otorhinolaryngology. Cesk. otolar.
3 no.4:165-171 Nov 54.

1. Z otolaryngologickej kliniky v Kosiciach. Prednosta: Univ.
Doc. MUDr Michal Suster
(ANESTHESIA, ENDOTRACHEAL
in otorhinolaryngol.)
(OTORHINOLARYNGOLOGY
anesthesia, endotracheal in)

SUSTER, M.

Experience with bronchoscopy in scleroma of the trachea and bronchi,
with special reference to atrophic tracheobronchitis. Bratisl. lek.
listy 34 no.12:1404-1410 Dec 54.

1. Z Otolaryngologickej klin. PLFUK v Kosiciach, predn. doc. dr.
M.Suster

(BRONCHOSCOPY, in various diseases
tracheobronchitis, atrophic)

(TRACHEA, diseases
tracheobronchitis, atrophic, bronchoscopy)

(BRONCHI, diseases
tracheobronchitis, atrophic, bronchoscopy)

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001654010019-4

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ŠUSTER M.

1276. ŠUSTER M. Otolaryngol. Klin. LFUK, Košiciach. * Bakteriálna infekcia pri
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SUSTER, M.; VYROSTEK, J.; LUKAN, J.

Results following radical operations. Cesk. otolar 8 no.4:213-217
Aug 59.

1. Otolaryngologicke klinika UK v Kosiciach, prednosta prof. MUDr.
Michal Suster.
(OTITIS MEDIA, surg.)

SUSTER, M.

Foramen jugulare syndrome in otogenous sepsis. Cesk. otolar. 9
no. 1:50-55 F '60.

1. Otolaryngologicke klinika LFUK v Kosiciach, prednosta prof.
MUDr. Michal Suster.
(OTITIS MEDIA compl.)
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(CRANIAL NERVES dis.)

SUSTER,M.; LUKAN,J.

Microscopic examination of nasal secretions in inflammatory diseases of the nasal mucosa with special reference to the diagnosis and therapy of allergic conditions. Cesk. otolar. 9 no.4:205-211 Ag '60.

1. Otolaryngologicka klinika lek. fak. P.J. Safarika v Kosiciach,
prednosta prof. MUDr. M. Suster.
(RHINITIS diag.)
(HAY FEVER diag.)

SUSTER, M.; LUKAN, J.; KLVANOVA, H.

On the problem of the relationship between bacterial infection in
allergic rhinitis and chronic inflammation of the lower respiratory
tract. Cesk. otolar. 11 no.5:291-295 '62.

1. Otolaryngologicka klinika Lekarskej fakulty Univerzity P.J. Safarika
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dr. F. Por.

(HAY FEVER) (RESPIRATORY TRACT INFECTION)

SUSTER, M.; HAVRILA, L.; KOVAL, J.

Course of severe esophageal wounds in current combined therapy.

Cesk. otolaryng. 11 no.6: 370-371 D '62.

(ESOPHAGUS) (ESOPHAGITIS) (MEDIASTINITIS)

SUSTER, M., DrSc.

Current problems in scleroma. Cesk. otolaryng. 14, nosile
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Ibid.:14-19.

1. Otolaryngologicka klinika Lekarskej fakulty University
P.J. Safarika v Kosiciach (prednosta: prof. dr. M. Suster,
DrSc.).

SUSTER, M., prof. dr., DrSc.; PICHANIC, M.

Epidemiological data on the familial incidence of scleroma.
Cesk. otolaryng. 14 no.1:27-30 F'65.

1. Otolaryngologicke klinika Lekarskej fakulty University
P.J. Safarika v Kosiciach (prednosta: prof. dr. M. Suster,
DrSc.).

SUSTER, M., prof. dr., DrSc.; CTSARIK, A.; HAVRILA, L.; KOVAL, J.; DEMKOV, J.; JABLONICKY S.; STOLINA, J.; SVATY, I.; VRZAL, J.; ZRUBEC, P.

Incidence of scleroma in eastern Slovakia. Cesk. otolaryng. 14 no.1:10-13 F'65.

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SUSTERIC, Jozef

Diffuse interstitial pulmonary fibrosis. (15-year follow-up of
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1. Institut za tuberkulozu, Golnik (Ravnatelj: doc. dr. Bojan
Fortic).

SUSTERIC, Jozef

A case of non-traumatic chylothorax. Zdrav. vestn. 33 no.8:209-210
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Fortic).

SUSTERS, Janis; BELEN'KIY, M.L., red.

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otechestvennoi i zarubezhnoi literatury, 1945-1961.
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SUSTERIC, Jozef

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1. Institut za tuberkulozu, Golnik. Direktor: dr. Bojan Fortic.

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SUSTERIC, Jozef

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(ANTITUBERCULAR AGENTS ther)

SUSTERIC, Jozef

A single daily dose of PAS per os. Tuberkuloza, Beogr. 12 no.4:79-83
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kand. med. nauk, retsenzent; DINDINS, J., red.; KRASOVSKA, M.,
tekhn. red.

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(BOTANY, MEDICAL)

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Report on the activity of the mathematicians and physicists of the
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(Slovenia--Mathematics)
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SUSTERSIC, France

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(Yugoslavia--Mathematics)
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Injuries of the trachea and main bronchi. Acta chir. Jugosl. 8 no.4:
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1. Kirurško odjeljenje Splošne bolnice Celje (Sef prim. dr Zvonimir
Sustersic).

(BRONCHI wds & inj) (TRACHEA wds & inj)

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ZET KOM

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Belgrade, Medicina Zdravstva, Vol. 17, No 9, 1961

1. Method of Determining Price (Remuneration) in Hospitals. Primary or Zonal SISTEMIC (Collis); pp 205-220.
2. Role and Task of Neuropsychiatric Hospitals and Clinics and of Neuropsychiatric Departments of General Hospitals in the Field of Mental Health. Primarius Dr. Vladičin Jevrem MAMU Hospital "Dr D. Mirović" Belgrade; pp 281-295.
3. Role of Laboratory in Finding Carriers of Infectious Health Pathogens Among Persons Working or Practicing A Health Certificate. Prof. Dr. Milivoje ŠTELLA (Rakovci); pp 296-299.
4. Contemporary "Nurology" Dr. Aleksandar RAVIĆ (Beograd); pp 299-301.
5. Current Status of the Neuropsychiatric Services and Starting Training Programmes of Psychiatric Doctors. N. Mirković, S. Stanić, "Jozef Jurić PETROVIĆ and J. Branko, Psychotherapy Clinician, San and Neurologist, Medical Faculty Beograd/Director, Prof. Dr. Sime TOMIC/ PP 304-305.

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CEZET I MOSTOVI
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SUSTIC, V.

Certain considerations on the problem of breast cancer (10 year material). Acta chir. Jugosl. 8 no.1:41-50 '61.

1. Kirurski odjel Opce bolnice "Braca Dr. Sobol" u Rijeci (Sef doc. dr. A.Medamic).
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(ABDOMEN wds & inj) (RETROPERITONEAL SPACE wds & inj)

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(GASTROINTESTINAL SYSTEM neopl)

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Piloinsidal sinus of barber's hand. Report of a case of hand infection. Acta chir. Jugosl. 11 no.1:59-72 O '64.

I. Opca bolnica Braca dr Sebol i Kururska klinika Medicinskog fakulteta fakulteta u Rijeci (Predstojnik prof. dr A. Longhino).

L 1168-66 ACCESSION NR: AP5025448		IU/0015/64/000/010/0322/0328 <i>13</i>	
AUTHOR: Korin, Nikola (Doctor) (Rijeka); Ribaric, Ljubomir (Doctor) (Rijeka); Sustic, Vladimir (Doctor) (Rijeka)			
TITLE: First aid in drowning			
SOURCE: Medicinski glasnik, no. 10, 1964, 322-328			
TOPIC TAGS: first aid, injury			
ABSTRACT: Brief discussion of the different types of drowning: apparent drowning (where drowning was not the cause of death), "dry" drowning, drowning in sweet water and drowning in sea water. Data from 15 patients, 9 treated by classical methods and 6 by newer methods including mouth-to-mouth breathing, tracheotomy if needed, bronchoscopic aspiration, evacuation of gastric content. Orig. art. has: 2 figures and 1 table.			
ASSOCIATION: none			
SUBMITTED: 00	ENCL: 00	SUB CODE: LS	
NR REF SOV: 000 Card 1/1	OTHER: 024	JPRS	

SUSTIC, Vladimir, dr.

Symptoms of acute abdomen in osteitis of the pubic bone.
Lijecn. vjesn. 87 no. 8:865-868 Ag '65.

1. Iz Kirurske klinike Medicinskog fakulteta i Opce bolnice
"Brace dr. Sobol" u Rijeci.

ABRAMOVICH, L.A.; GEFEN, G. Ye., kand. med. nauk; ZAYDENOV, A.M., kand. med. nauk; KATSNEI^{SON}, I.A.; KIREYEVA, I.N.; KOTSAREV, V.N. SUTIN, I.A., prof. SHAPOVALOV, A.V.

Some characteristics of respiratory infections of adnovirus etiology in adults. Voen.-med. zhur. no. 1866-68 Ja '66 (MIRA 1982)

PUR, S.; SUSTKOVA, S.

On the problem of the elimination of excentric fixation. Cesk. oftal.
18 no.3:161-167 My '62.

1. Ocni oddeleni OUNZ v Kromerizi.
(STRABISMUS ther)

SUSTR, Jaroslav

Standardization of technological processes and group machining of
small plane parts in small-lot production. Stroj vyr 12 no.6:418-
422 Je '64.

I. Kovosvit National Enterprise, Sezimovo Usti.

SUSTI, Karel

The new Czechoslovak Standard 37 5200 and 34 1060.
Elektrotechnik 20 no.1:30 Ja '65.

1. Research Institute of Standardization, Prague.

DOLAN, D. (Prague); NOVACEK, J., inz. (Prague); SUSR, K. (Prague)

Electric power distribution in residential buildings and public
buildings. Pt.1. Elektrotechnik 20 no.4:103-106 Ap '65.

C. R. SUSR, M.
1951

Organic Chemistry
10

Some additional basic benzhydryl ethers. M. Protiva, M. Šustá, and M. Borovička (United Pharm. Works, Prague, Czech.) *Chem. Listy* 45, 43-4 (1951).—*Ph-CHO-(CH₂)_nNH₂*, prep'd. from *Ph-CHBr* (I) and *HOC(CH₂)_nNH₂* in 45% yield, *b*₄₅ 152-0°, *m*. 60-72° (from ether); *HCl salt*, *m*. 165-6° (from *Me₂CO*). *Ph-CHO(CH₂)_nCl* (II) was prep'd. by refluxing 25 g. I, 10.5 g. *HOC(CH₂)_nCl*, and 10.6 g. *NaCO₃* 8 hrs. at 120-30° with stirring; vacuum distn after removal of the salt yielded 20.7 g. (84%) II, *b*₄₅ 149-50°. *Ph-CHO(CH₂)_nNHMe* was prep'd. by heating 10 g. II 12 hrs. at 140° with 75 ml. alc. *MeNH₂* (contg. 24 g. *Me-NH₂*) in an autoclave; stripping off the Et₂O, adding 30 ml. *H₂O*, extg. the product with Et₂O, purifying by way of the HCl salt, and distg. at 137-9° and 0.25 mm. (13.7 g., 74%). *HCl salt*, *m*. 179-60° (from *Me₂CO*). *Ph-CHO-(CH₂)_nNEt₂* [37 g. (82.5%) from 32.6 g. *Ph-CHOH* and 19 g. *CH₂(CH₂)_nNMe₂* in 150 ml. *C₆H₆* refluxed 8 hrs. with 7.5 g. *NaNH₂*] *b*, 167-74°; *HCl salt*, *m*. 166-8° (from *Me₂CO*). *HOC(CH₂)_nNMe₂* (III) [12 g. (80%) from 14 g. *HO-(CH₂)_nCl* and 100 ml. *MeOH* soln. of 22.6 g. *Me₂NH* heated 6 hrs. at 100° and 8 hrs. at 180° in an autoclave, the alc stripped off, the residue acidified with *HCl*, extd. with Et₂O, the aq. layer alkalized, and the base extd. with Et₂O], *b*₄₅ 129-30°. III (10 g.) and 10 g. *NaCO₃*, heated to 120°, 17 g. molten *I* added, the mixt. heated 5 hrs. at 140°, mixed with ether after cooling, and distd. to yield 15.8 g. (71%). *Ph-CHO(CH₂)_nNMe₂* *b*₄₅ 200-5°; *methiodide* in 120-31° (from *Me₂CO*). *Ph-CHOCH₂CH(OH)CH₂NH-CH₂Me* was prep'd. by heating 12 g. *Ph-CHOCH₂CH(OH)CH₂Me* and 9 g. *Ph-CH₂NH₂* 10 hrs. at 130-5° in an autoclave; stripping off the unreacted materials, dissolving the residue in Et₂O, and treating with alc. *HCl* to give (7.5 g.) *HCl salt*, *m*. 162.5-3.5°.

M. Hudlický

SUSTRINA, V.E.

Effect of the environment on the sex ration in hemp. Agro-
biologija no.4:130-132 J1-Ag '58. (MIRA 11:9)

1. Penzenskaya gosudarstvennaya sel'skokhozyaystvennaya optytnaya
stantsiya, p/o Lunino.
(Hemp) (Plants, Sex in)

SUSTRINA, V.E.

Vegetative hybridization of hemp as means of obtaining
parent material for breeding. Agrobiologija no. 3:386-
391 My-Je '60. (MIRA 13:12)

1. Penzenskaya gosudarstvennaya sel'skokhozyaystvennaya
opytnaya stantsiya.
(Hemp breeding)

ACCESSION NR: AP4022711

S/0020/64/155/002/0306/0308

AUTHOR: Arifov, U. A. (Academician); Ayukhanov, A. Kh.; Sustrov, V. A.;
Khasanov, R. M.; Poltoratskiy, V. I.

TITLE: Cathode sputtering of tungsten by potassium ions

SOURCE: AN SSSR. Doklady*, v. 155, no. 2, 1964, 306-308

TOPIC TAGS: cathode sputtering, tungsten sputtering, tungsten surface purification, tungsten, potassium ion, $^{74}\text{W}^{184}$, potassium

ABSTRACT: The authors investigated the sputtering of tungsten in a form of chemical compounds and also studied the conditions for obtaining a pure tungsten surface. Radioactive tracers were used for determination of the amount of sputtered material. Polycrystalline tungsten targets with induced activity ($^{74}\text{W}^{184}$) were bombarded with potassium ions. The sensitivity of detection was 10^{-9} gm. The experimental details were given in author's paper (Iz. AN UzSSR, No. 2, 1963). It was found, by using retarding or accelerating potentials, that

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ACCESSION NR: AP4022711

the spattered particles were negative ions to a considerable extent. This is attributed to the adsorption of residual gases by tungsten atoms. Heating the target reduces the number of negative ions. At $T > 1600K$, the spattering is temperature independent, which indicates that the tungsten compounds are practically absent, and that the spattering is characteristic of a pure surface. Orig. art. has: 4 figures.

ASSOCIATION: Fiziko-tehnicheskiy institut Akademii nauk UzSSR (Physics-Engineering Institute, AN UzSSR)

SUBMITTED: 21Sep63

DATE ACQ: 08Apr64

ENCL: 00

SUB CODE: PH

NO REF SOV: 003

OTHER: 002

Card 2/2

SUSULOWSKA, Maria

The role of the psychologist in the psychiatric clinic.
Neuroł. neurochir. psychiat. Pol. 15 no.4:617-623 Jl-Ag '65.

1. Z Zakładu Psychologii Wychowawczo-Klinicznej UJ w Krakowie
(Kierownik: doc. dr. M. Susulowska).

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001654010019-4

OSHMYAN, G.L.; IGNATOVA, A.V.; SUSYKINA, A.V.

Production of the heavy type rum. Trudy TSMIIISP no. 13;34-40
'62. (MIRA 17;5)

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001654010019-4"

SUSYUMOV, Ye.M. (Moskva)

Scientists on oceans; 10th Pacific Science Congress. Priroda 51
no.5:65-66 My '62. (MIRA 15:5)
(Pacific Area--Congresses)

SUSZCZEWSKI, Kazimierz, mgr inz.; MEYER, Halina, mgr inz.

Principles of designing container cooling of heated water ejected from thermal power plants. Gosp wodna 23 no.12: 453-455 D '63.

1. Energoprojekt, Warszawa.

SUSZCZEWSKA-FISCHEROWA, Irena; OKULICZ, Leszek

Excision of the spleen in leukemias. Polski przegl. chir. 33
no.2:159-163 '61.

l. z II Kliniki Chirurgicznej AM w Warszawie Kierownik: prof. dr
J. Mossakowski.

(LEUKEMIA surg) (SPLEEN surg)

SUSZCZEWSKI, Kazimierz, mgr inz.

Cooling of water thrown from condensers in natural or artificial reservoirs. Gosp. wodna 22 no.10:445-446 0 '62.

1. Energoprojekt, Warszawa.

SUSZER, A.

RUMANIA/Chemical Technology - Chemical Products and Their
Application. Leather. Fur. Gelatin. Tanning Agents.
Technical Proteins

I-29

Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 14070

Author : Suszer A.
Title : Problems and Prospects of Providing a Supply of
Tanning Agents

Orig Pub : Rev. chim., 1956, 7, No 5, 302-303

Abstract : To ensure a supply of local tanning agents in the Rumanian People's Republic it is necessary to put into effect the following measures: 1) Obviate the losses of tannins during the tanning process by an addition of up to 15% of synthetic tanning agent solutan, which will result in a saving of up to 25% of tannins (in the synthesis of solutan are utilized phenols of waste by-products); 2) Increase and reorganize collection of tanning materials by utilizing in addition to oak and

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APPROVED FOR RELEASE: 03/14/2001

RUMANIA/Chemical Technology - Chemical Products and Their
Application. Leather. Fur. Gelatin. Tanning Agents.
Technical Proteins

I-29

Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 14070

spruce bark also willow bark, and making the collection of tanning materials compulsory in all the forested areas; 3) Utilize spruce cones as a tanning raw material, which will make available 1/3 of the required amount of tannins; 4) Put into practice the use of synthetic tanning agents produced from domestic raw materials and chemical byproducts.

Card 2/2

- 450 -

SUSZER, A.

II

RUMANIA / Chemical Technology. Chemical Products and
Their Application. Leather. Fur. Gelatin.
Tanning Materials. Industrial Proteins.

H

Abs Jour: Ref Zhur-Khimiya, No 9, 1959, 33674.

Abstract: extracts (chestnut, mimosa, valonia, quebracho in a group). This practice, however, is not economical. The basic indices characterizing the tanning action of the extracts, are considerably lower with STA than with vegetable tanning agents. It is recommended not to exceed the share of STA in a group over 30%; to exclude the use of deficient β -naphthol and phenol as raw materials for the obtaining of STA; to utilize sulfonated extracts of native tanning agents in a moderate degree of sulfonation; and to lengthen the production cycle of the treatment of the under side. -- See RZhKhim, 1959, 29951.
-- G. Markus.

Country	: RUMANIA	C
Category	: Inorganic Chemistry. Complex Compounds	
Abs. Jour.	: Ref Zhur-Khim, 1959, No 5, 14918	
Author	: Suszler, A.	
Institut.	: -	
Title	: A Simple Method of Preparation of Complex Compounds of Chromium with Chlorine and Fatty Acids	
Orig Pub.	: Rev. chim., 1958, 9, No 5, 262-264	
Abstract	: A simple method of preparing complex compounds of Cr (+3) soluble in water and containing Cl and fatty acids is described. The method consists of simultaneous introduction into the reaction vessel of fatty acid and $CrCl_3$. The alcohol is used as a solvent, and then a stoichiometric quantity of an aqueous solution of NH_3 is added.-- N. Grekov	

SUSZER, A.

SCIENCE

Periodicals: REVISTA DE CHIMIE. Vol. 9, no. 9, Sept. 1958

SUSZER, A. A simple method for the preparation of melamine. p. 509

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 2,
February 1959, Unclass.

SUSZER, A.

Distr: 4E3b

A simple method for the preparation of complex compounds of chromium with chlorine and fatty acids. A. Suszer. *Rev. chim. (Bucharest)* 9, 262-4 (1959) (English summary).—The fatty acid is added to CrCl₃ to which is rapidly added the alc. used as solvent and which contains a stoichiometric amt. of aq. NH₃. The mixt. is then refluxed briefly, cooled, and the resulting NH₄Cl crystals are filtered off to yield a product with excellent H₂O-repellent properties for textile fibers, leather, paper, and glass. Gary Gafford

2
1/1/(Nc)

SUSZER, A.
SUSZER, GHEORGHE

Country: Rumania

Academic Degrees:

Affiliations: -not given-

Source: Bucharest, Revista de Chimie, Vol 12, No 8, Aug 1961, pp 494-497.

Data: "Methods of Estimating the Dispersing Properties of the Surface Active Agents Used in Dying Textile Materials."

Authors:

CAJIN, C., -Engineer.-

SUSZER, A., -Engineer.-

TONESCU, Elena, -Engineer...

2

GPO 981643

SÜSZER, Adalbert, ing.

Report coefficient as a single quality index? Industria usoara
9 no.7:279-280 J1 62.

SUSZCZYNSKI, Stanislaw, mgr. inż.

Viscosity of liquid heating fuels, Gauwida techn. sanit 38
no. 5:176-179 My '64

SUSZEK, S.

Railway rolling stock repair plants have been working on
standards technologically justified. Przegl kolej mechan 11
[i.e.16] no.5:157-159 My '64.

KURZAWA, Zbigniew; SUSZKA, Andrzej

Determination of small amounts of cysteine and cysteine in the presence
of each other by means of sodium-azide-iodine reaction. Chem anal 5
no.2:327-329 '60. (EEAI 10:3)

1. Katedra Chemii Ogolnej Politechniki, Poznan.
(Cystine) (Cysteine) (Sodium azide) (Iodine)

KURZAWA, Zbigniew; SUSZKA, Andrzej

Application of induced sodium azide-iodine reaction for the determination of microgram amounts of penicillin. Chem anal 5 no.6:897-902 '60. (EEAI 10:9)

1. Department of General Chemistry, Politechnika, Poznan.

(Sodium azide) (Iodine) (Penicillin)

KAPITANCKYK, Kazimierz; KURZAWA, Zbigniew; SUSZKA, Andrzej

Protection of steel containers against the action of ammonia
solutions. Chemia Poznan no.2:21-25 '64.

1. Department of General Chemistry, Technical University, Poznan.

SUSZKA, Boleslaw

POLAND / Forestry. Dendrology.

K-2

Abs Jour: Ref Zhur-Biol., No 6, 1958, 24362.

Author : Suszka, Boleslaw.

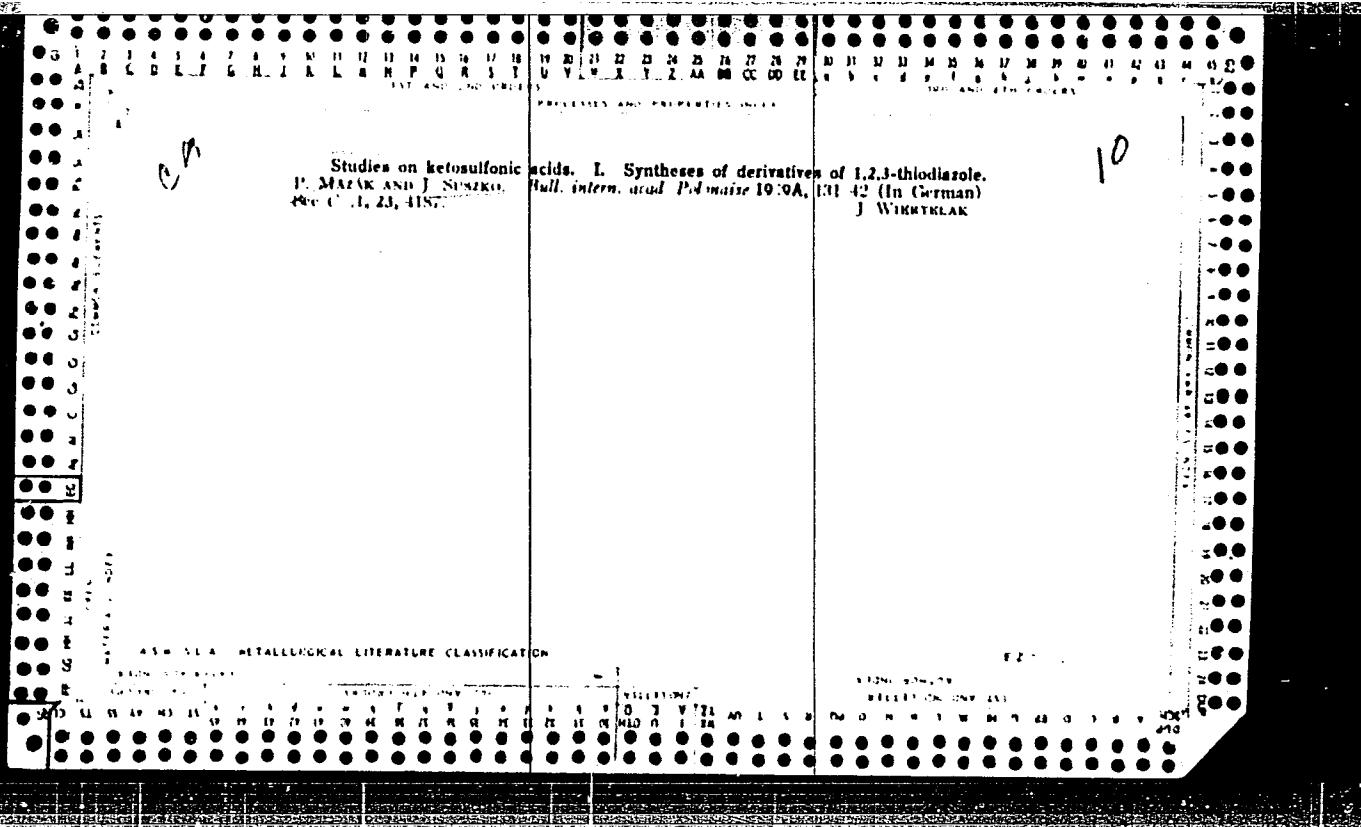
Inst : Not given.

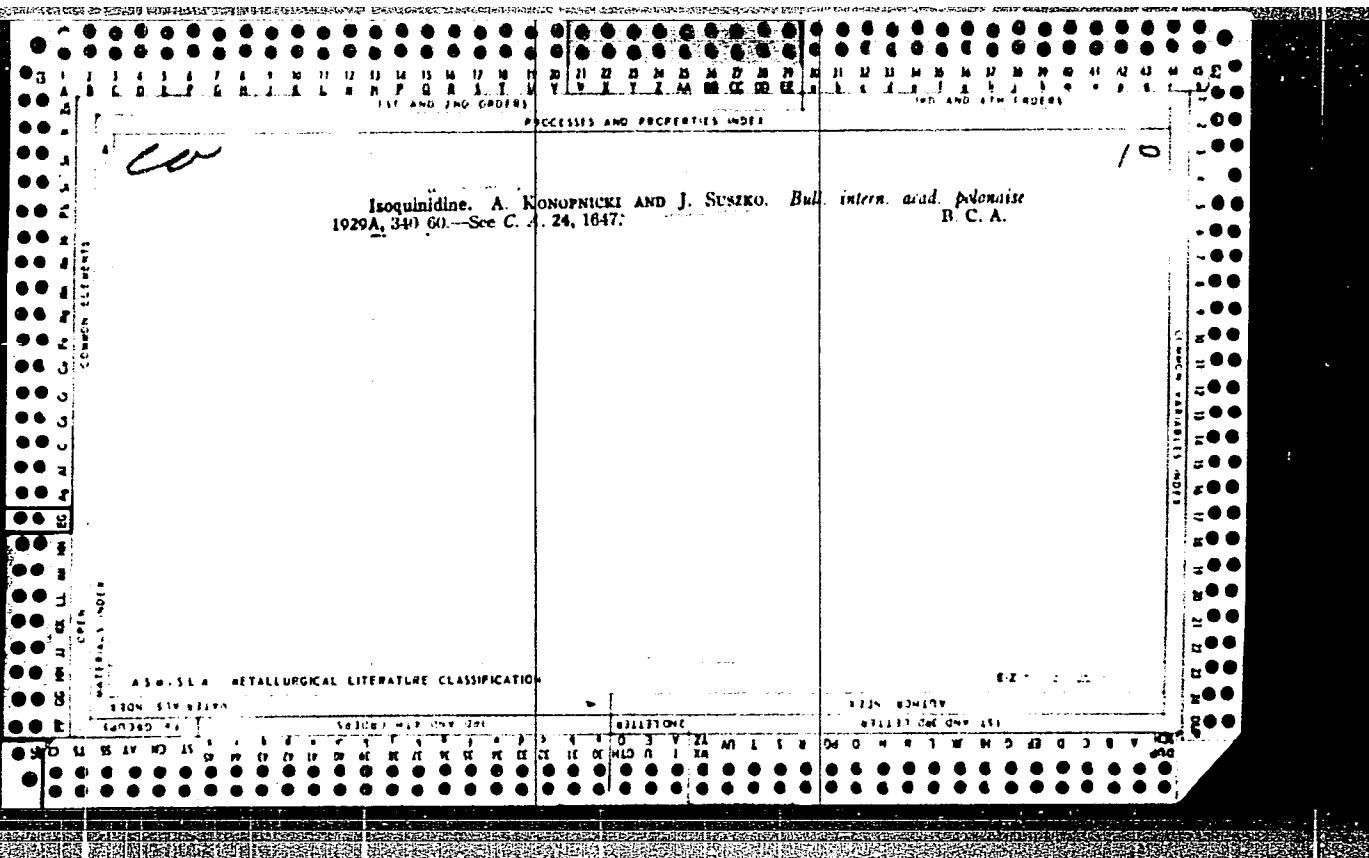
Title : Species and Varieties of Arbor Vitae in the Kornicki Arboretum.

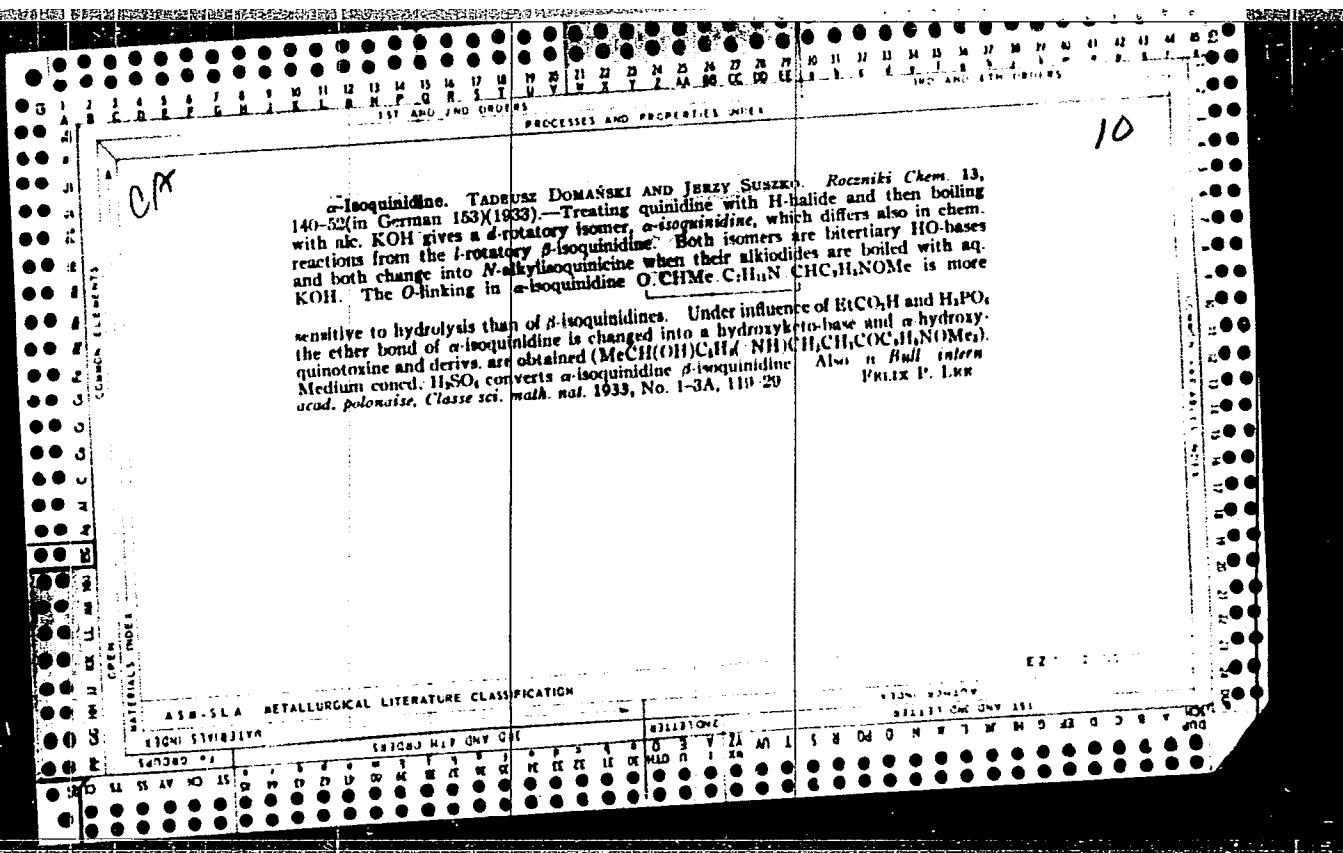
Orig Pub: Arboretum korn., 1956, (1957), 2, 15-44.

Abstract: Described are: *Thuja koraiensis*, *T. occidentalis* (29 varieties), *T. plicata* (4 varieties) and *T. standishii*. Their forest and decorative qualities are examined, whereby a great perspective for *T. plicata* is observed in the conditions of Polish forestry (data of tests are cited). It is pointed

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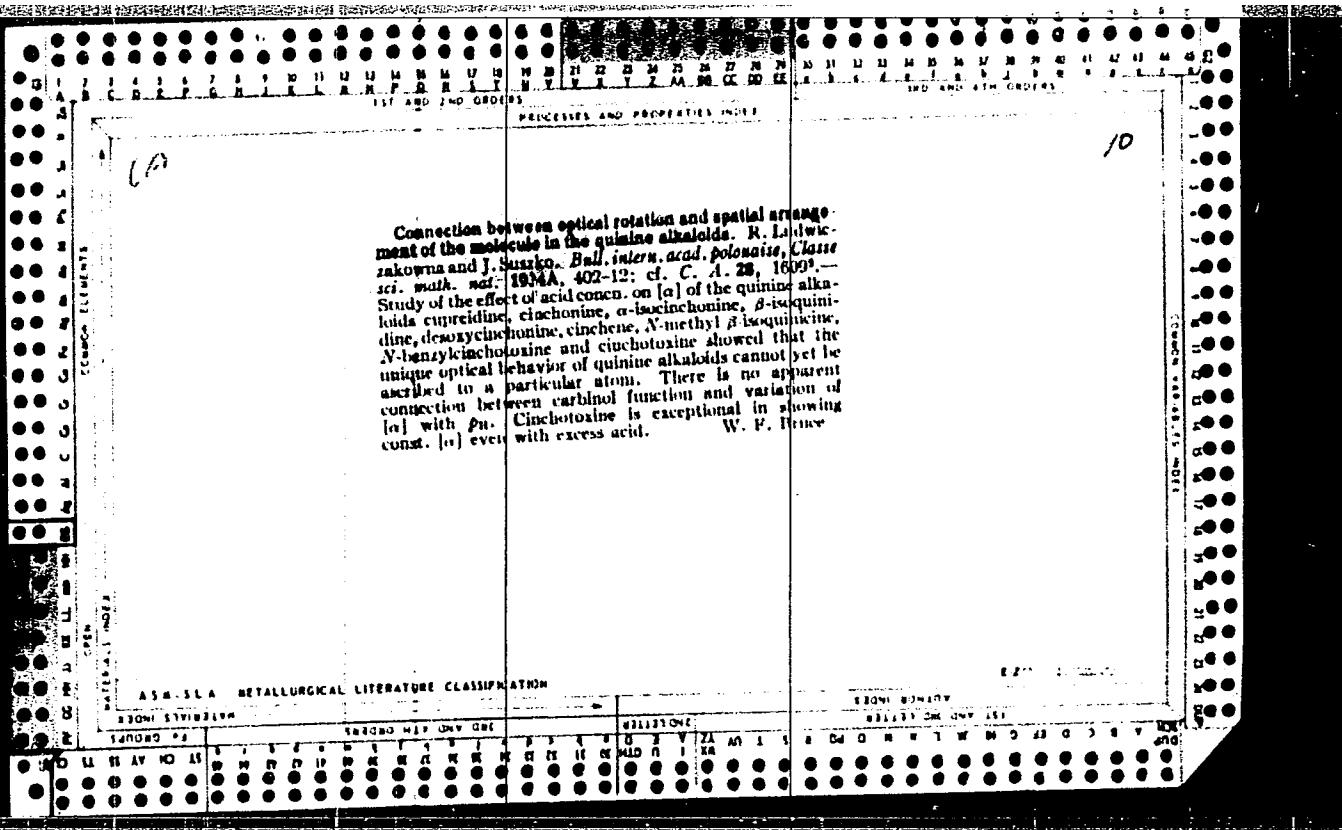
1A

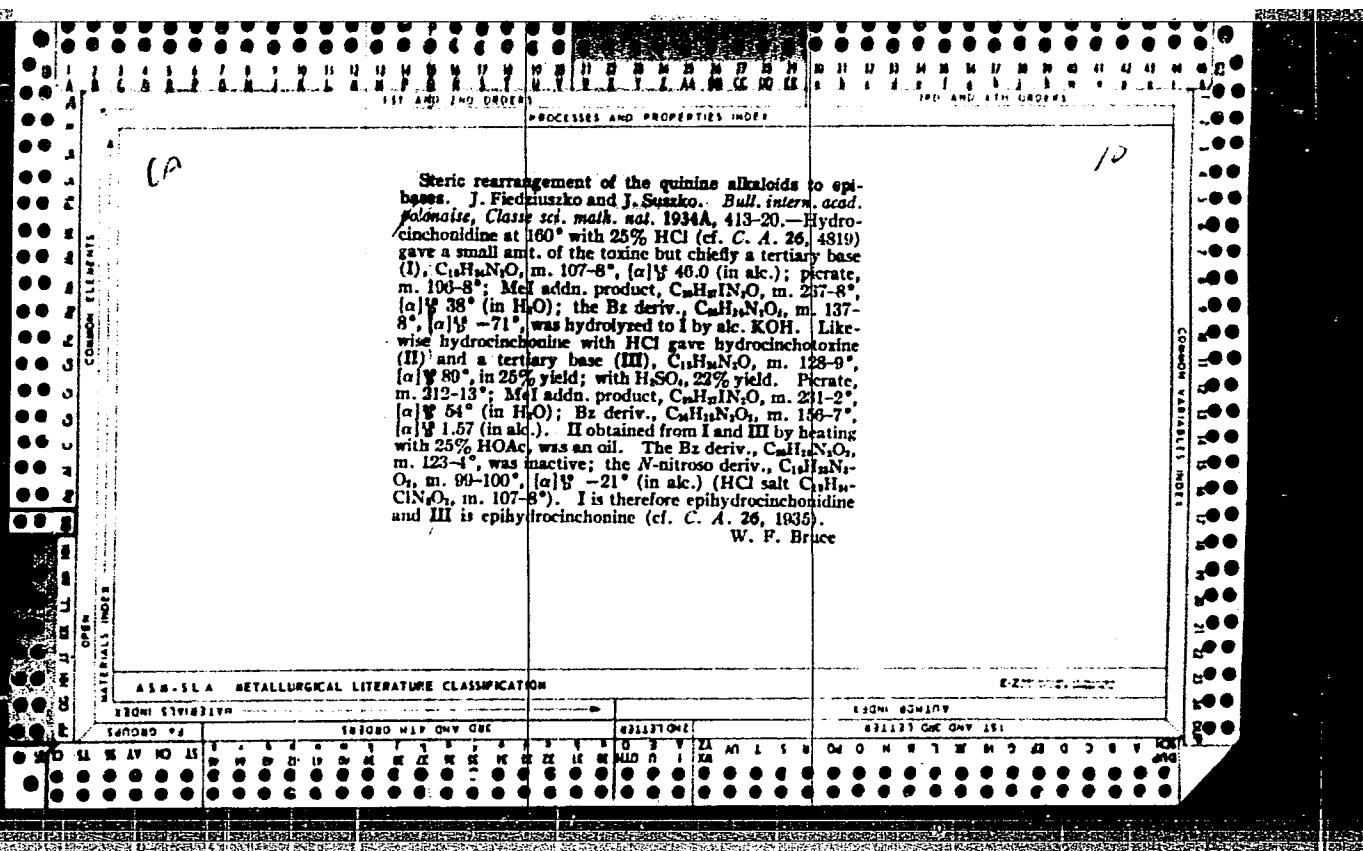
2

Polyhalo derivatives of acetophenone. Mieczyslaw Jastrzebski and Jerzy Suszko, Roczniki Chem. 13, 213-7 (in German 207) (1933).—On treatment of α -C₆H₅COCl with CH₃ClCOCl in the presence of AlCl₃, ω -3,4-trichloroacetophenone (I), m. 43°, was obtained, and converted on treatment with Br₂ into ω -bromo-3,4-dichloroacetophenone (II), m. 58°. These were converted to the corresponding oximes, m. 110° and 122°, resp. The oxime of 3,4-dichloroacetophenone m. 107°. On reduction, these oximes yield the *N*-acetylated derivs. of 3,4-dichloroaniline, m. 105°, 103°, and 121°, resp. PhCOCH₂Cl. T. H. C.

ASR-SEA - METALOGICAL LITERATURE CLASSIFICATION

151 AND 152 ORDERS		153 AND 154 ORDERS	
C		10	
<p><i>ca</i></p> <p>Optically active aryl "sulfonyl" fatty acids. Wacław Piechulek and Jerzy Szepko. <i>Roczniki Chem.</i> 13, 529-9 (1933) (in German). — <i>Phenylsulfonylmethylsuccinic acid</i> (I) is obtained by mixing 40 g. $\text{Me}_2\text{CBrCO}_2\text{H}$ in 100 cc. alc. (cooled on ice) and 10 g. NaOH (satd. soln.) with 28 g. PhSH in 110 cc. alc. and 12 g. NaOH (50% soln.). It is kept on ice for several hrs., then at room temp. overnight, refluxed 12 hrs., cooled to half, boiled 8 hrs., dild. with H_2O and acidified with HgSO_4. Extin. with ether and recrystd. from C_6H_6 gives 38 g. of crystals contg. 0.5 mol. C_6H_6 and m. 65-8°. Derivs. of I prepd. were: acid chloride (II), a yellow oil, b.p. 108-10°; amide, m. 69-70°. <i>Phenylsulfonyldimethylsuccinic acid</i> (III) is obtained by keeping below 60° 4.8 g. of I in 10 cc. glacial AcOH and 3 cc. 30% H_2O_2 (IV). The AcOH is removed, the residue dissolved in CHCl_3, and petr. ether added; the crystals m. 121-2° (3.3 g. yield). II is obtained from SOC_6H_5 and III. <i>L</i>-III <i>cinchonidine salt</i>, m. 162-3°, $[\alpha]_D^{25} -136.2^\circ$; <i>L</i>-III, m. 122-3°, $[\alpha]_D^{25} -43.8^\circ$; <i>d</i>-III <i>guinine salt</i>, m. 167-9°, $[\alpha]_D^{25} -40.7^\circ$; <i>d</i>-III, m. 122°. <i>Phenylsulfonyldimethylsuccinic acid</i> (V) is obtained by heating 1 g. I-III in 7 cc. glacial AcOH on a water bath with the addn. of 1.6 cc. IV during the course of 2 hrs. The solvent is expelled and a brown oil, cryst. after moistening with H_2O and rubbing, is obtained, washed with H_2O, dried and recrystd. from C_6H_6, it m. 146-7° (yield 47%). <i>L</i>-<i>Ester</i> of V, from II, abs. alc. and IV, m. 39-40°. <i>L</i>-<i>Phenylsulfonylacetic acid</i> (VII), m. 119-20°, $[\alpha]_D^{25} -179.5^\circ$; <i>cinchonidine salt</i>, m. 174-6° (decompn.), $[\alpha]_D^{25} -179.1^\circ$; <i>d</i>-VII, m. 119-20°, $[\alpha]_D^{25} 180.6^\circ$, was best obtained from its <i>cinchonine salt</i>, m. 38-40° (decompn.), $[\alpha]_D^{25} 220.5^\circ$. Optical rotations were detd. with c = 1 and the solvent $\text{CHCl}_3 + \text{EtOH}$ (2 + 1).</p> <p>C. T. Chmielewski</p>			
<p>ASR-SLA METALLURGICAL LITERATURE</p> <p>SEARCHED INDEXED</p>		<p>SEARCHED INDEXED</p> <p>SEARCHED INDEXED</p>	
<p>OPEN</p> <p>ITEMS INDEXED</p>		<p>ITEMS INDEXED</p> <p>ITEMS INDEXED</p>	





C.P. Further stereochemical studies. Optical isomerism of the α -phenylsulfinylphenylacetic acids. W. Piechulek and L. Szyszko. *Bull. Intern. Acad. Polonaise, Classe Sci. math. nat.*, 1934A, 453-70. Resolution of *dl*- α -phenylsulfinylphenylacetic acid, m. 103.4° (cf. *C. A.* 36, 360), by means of brucine or cinchonidine in *Coll.* yielded the (+)-optical antipode (I), $C_9H_{11}O_3S$, m. 129.30°, $[\alpha]_D^{25}$ 216°. The brucine salt, $C_{11}H_{14}N_2O_3S$, m. 97°, $[\alpha]_D^{25}$ 65° (1% in 1:1 alc.-CHCl₃); the cinchonidine salt, $C_{12}H_{16}N_2O_3S$, m. 178° (decompn.), $[\alpha]_D^{25}$ 10.4°. From the mother liquor the (-)-antipode (II) was secured by crystn. from HOAc, m. 129.30°, $[\alpha]_D^{25}$ -215.6°; (-)-menthylamine salt, $C_9H_{13}NO_3S$, m. 157.8°, $[\alpha]_D^{25}$ -170.2°. Cautious oxidation of I by 30% H_2O_2 gave the optically active form with both asym. centers (SO group and C atom) +, ((+), (+))- α -phenylsulfinylphenylacetic acid (III), $C_9H_{11}O_5S$, m. 149.50° (decompn.), $[\alpha]_D^{25}$ 410.4°. The mother liquor from III gave ((-), (+))- α -phenylsulfinylphenylacetic acid (IV), $C_9H_{11}O_5S$, m. 139° (decompn.), $[\alpha]_D^{25}$ 195.0°. Oxidation of II in HOAc gave ((-), (-))- α -phenylsulfinylphenylacetic acid (V), recrystd. from alc., m. 148.0°, $[\alpha]_D^{25}$ -420.4°. In the HOAc mother liquor was found ((+), (+))- α -phenylsulfinylphenylacetic acid (VI), m. 130° (decompn.), $[\alpha]_D^{25}$ -191.2°. Equal amounts of III and V gave the inactive racemic mixt., m. 146.7° (decompn.); the corresponding mixt. of IV and VI m. 135° (decompn.). Equal amounts of III and IV in alc.-CHCl₃ gave a half-racemate,

$[\alpha]_D^{25}$ 304.4°; likewise V and VI gave a half-racemate, $[\alpha]_D^{25}$ -303.9°. Both half-racemates exist only in soln.; their optical activity is due only to the asym. C. The corresponding half-racemates with optical activity due only to the sulfoxide were prep'd. from III and VI, IV and V; $[\alpha]_D^{25}$ = 116°. By soln. of III, IV, V or VI in 1% NaOH, immediate racemization of the active C occurs and the half-racemates III and VI or IV and V are formed, from which by crystn. from dil. alc. III or V can be obtained by spontaneous resolution. With 2 moles H_2O_2 , I and III give α -phenylsulfonylphenylacetic acid, $C_{10}H_9O_5S_2$, m. 181.3° (decompn.), largely racemized by recrystn. These results agree with van't Hoff's principle of optical superposition. — W. F. Bruce

ASA-SLA METALLURGICAL LITERATURE CLASSIFICATION